**Principle of Engineering Course Syllabus**

**2023-2024 School Year**

**Instructor:** Mrs. Hawkins

 **e-mail:** jhawkins@ipcisd.net

**Conference: 9:00 am – 9:45am and 2:50-3:30pm M-F**

**Availability most days before and after school**

## Welcome to POE

#### Course Description:

Principles Of Engineering (POE) is a high school-level survey course of engineering. The course exposes students to some of the major concepts that they will encounter in a post-secondary engineering course of study. Students have an opportunity to investigate engineering and high-tech careers. POE gives students the opportunity to develop skills and understanding of course concepts through activity-

, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem-solving skills based upon engineering concepts. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

Students will employ engineering and scientific concepts in the solution of engineering design problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.

 **Course Goals / Objectives:**

Principles of Engineering, focuses on making math and science relevant for students. The approach used is called APPB-learning (activities, projects, and problem- based learning). By engaging in hands-on, real-world projects, students understand how the material covered in class can be applied in their everyday lives. Learning activities will include teacher-led instruction, cooperative learning, and project-based learning. Technology will be used to enhance students learning, and provide real- world applications.

Engineering is a profession that contributes to change and improvements in our world. It creates imaginative and visionary solutions to the challenges of the 21st century – the problems of feeding the world, how we will use energy and continue to protect our environment. Engineering and technology play a vital role in the quality of everyday life and wealth creation. Appropriate attitudes relative to the professional social obligations of the engineer, and the relationships between math, science, technology and society need to be learned. Real world, open-ended engineering problems that cover a wide range of content will be presented.

Six Weeks Grade: Semester Grade:

60% Projects /Activities/Engineering Notebook Semester exam will count as 1/­7 th

40% Test/Quiz semester average.

100% Total

**Late work**

Assignment due dates are established by the teacher or in Skyward. There will be a standard deduction of 10 point per class day for late work for the 1st 5 school days, afterwards it will become a zero. Most assignments will be completed during class time. It is important that you communicate any special circumstances regarding absences and late work to Mrs. Hawkins ASAP. activities will still be due on the assigned date.

**Absent or Missing Assignments**

It is your responsibility to let me know that they are in need of help. You must check and use Skyward (for Lesson Plans and files needed) to get caught up on any and all work you missed or are behind on. If you need help, let me know, otherwise you will need to make up the work on your own. You are responsible for any make-up work, and will adhere to the assignment deadlines. Students will receive an additional day to make up the assignment. Projects assigned before student is absent due to extracurricular

**Posting Student Work** – Student grades will be posted in Skyward parent portal within five business days for daily grades and major grades. Special consideration is given to major projects, including lengthy assignments.

(Return this portion for teacher record)

POE – Mrs. Hawkins, Engineering, POE and Robotics Instructor

Please sign and return this packet after reviewing the Course Syllabus, Classroom Rules and the Iowa Park CISD Student Handbook.

My child and I understand that he/she must comply with these regulations. We realize that if he/she fails to abide by the rules, he/she will adhere to the sanctions listed and will not be able to participate in this computer-based lab or regular classroom.

Student’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student’s Signature Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent’s/Guardian’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent’s/Guardian’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_

Grade Classification: \_\_\_\_\_\_\_\_\_

Please list any Special needs or concerns:

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